

## ENVIRONMENTAL ASSESSMENT RECORD

1. **NUMBER** CO-110-2004-009-EA
2. **CASEFILE/PROJECT NUMBER:** COC-55438
3. **PROJECT NAME:** TBI 36-11 Well and the 36-11BD directional well
4. **LEGAL DESCRIPTION:** T2N R97W Sec 36 NWNW
5. **APPLICANT:** Tom Brown Inc (TBI).
6. **NEED FOR PROPOSED ACTION:** Tom Brown Inc. has submitted a request for a permit to drill a well on their lease. BLM lease COC 55438 grants Tom Brown Inc. the right to drill for, mine, extract, remove, and dispose of all the oil and gas (except helium) in the lands described in the lease, in accordance with 43 CFR 3101.
7. **DESCRIPTION OF PROPOSED ACTION:**
  - a. **Proposed Action:** Two 6500-foot deep gas wells are proposed with 160 feet of access road. The drill pad will be 200 by 320 feet with a maximum cut/fill of 31 feet. The access road will be a 30-foot wide disturbance, crowned, ditched, graveled as needed, with a grade of less than 8%. Culverts will be used if requested by the BLM. No range management fences will be encountered.

The reserve pit will be lined to prevent leakage and fenced “stock tight” on three sides. The fourth side will be fenced when the rig is released. The pit will be allowed to dry before it is back filled. The liner will be buried on site.

The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

All equipment and traffic will be confined to the area specified in the APD.

All soil material will be placed in an area where it can be retrieved. The drill pad and reserve pit will be designed to prevent the collection of surface runoff.

Topsoil, down to six-inches, will be stockpiled.

Waterbars will be constructed as per BLM standards.

In the event of a dry hole, the location will be re-contoured and the topsoil will be distributed evenly over the entire location. The location will be disked; the seed will be drilled followed by cultipaction. Steep slopes will be broadcast seeded at twice the specified rate. Certified seed will be used with a minimum germination rate of 80% and minimum purity of 90%. Seeding will take place after September 15<sup>th</sup> or before May 15<sup>th</sup>. Weeds will be controlled in conformance with EPA and BLM guidelines.

In the event of production, those areas not needed for operations will be re-contoured and water barred to support vegetation and reduce erosion. Partial or complete rehabilitation will begin upon well completion, when the pit dries out and when weather permits.

A pipeline is proposed to be built next to the road, 228 feet to the nearest tie in point. Disturbance will be adjacent to the access road.

TBI will be responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. If historic or archaeological materials are uncovered, TBI will suspend all operations that might further disturb such materials and immediately contact the Authorized Officer. Within five (5) working days the Authorized Officer will inform TBI as to what mitigation measures are appropriate.

If TBI wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, TBI will assume responsibility for whatever recordation and stabilization of the exposed materials may be required.

The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, TBI will then be allowed to resume construction. There will be no trees or sage brush affected by this project. Total disturbance with pipeline will be 2 acres.

**b. No Action Alternative:** No well would be drilled, and no pipeline or road will be constructed.

#### **8. PLAN CONFORMANCE REVIEW:**

**a. Name of Plan:** White River Resource Management Plan

**b. Date Approved:** July 1, 1997

**c. Page or Decision Number:** Page 2-5: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

**d.** The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3) The action conforms to the decisions/pages of the plan listed above.

**9. RELATIONSHIP TO OTHER NEPA DOCUMENTS:** This environmental assessment is tiered to, and incorporates by reference the White River Resource Area Resource Management Plan (PRMP) and Final Environmental Impact Statement (FEIS) approved May 29, 1996.

## **10. AFFECTED ENVIRONMENT/ENVIRONMENTAL IMPACTS/MITIGATION MEASURES:**

### **CRITICAL ELEMENTS**

An X in the “Not Affected” column in the table below indicates that the critical element has been analyzed and will not be affected by the proposed action or the no action alternative. Affected elements are addressed in the paragraphs following the table.

<b>Not Affected</b>	<b>Critical Element</b>	<b>Specialist Signature</b>	<b>Date</b>
	Air Quality		
	Cultural Resources		
<b>X</b>	Floodplains, Wetlands, Riparian Zones, and Alluvial Valleys	Ed Hollowed	11/21/03
<b>X</b>	Native American Concerns	Scott Pavey	12/2/03
<b>X</b>	Prime and Unique Farmlands	Scott Pavey	12/2/03
<b>X</b>	Threatened and Endangered Animals	Ed Hollowed	11/21/03
<b>X</b>	Threatened and Endangered Plants	T. Meagley	11-13-03
	Wastes, Hazardous or Solid		
	Water quality, Surface or Ground		
<b>X</b>	Wilderness Area, Wild and Scenic Rivers	Chris Ham	11/17/03
<b>X</b>	Areas of Critical Environmental Concern	T. Meagley	11-13-03
<b>X</b>	Environmental Justice	Scott Pavey	12/2/03
	Invasive, Non-Native Species/Reclamation		
	Noxious Weeds		

### **AIR QUALITY:**

***Affected Environment:*** There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action. During periods of low precipitation, air quality in the area of the proposed action is often diminished by dust caused by human disturbance.

***Impact of Proposed Action:*** The proposed action would result in short term, local impacts to air quality during and after construction, due to dust being blown into the air. After adequate vegetation is reestablished, blowing dust should return to pre-construction levels.

***Impact of No Action Alternative:*** No increase in dust will occur.

***Mitigative Measures:*** If fugitive dust becomes a problem, the applicant will spread water on the road surfaces to control it.

***Signature of specialist:*** CHollowed 11/21/03

## **CULTURAL RESOURCES:**

***Affected Environment:*** The proposed well pad location, access road and well-tie pipeline route have been inventoried at the Class III (100% pedestrian) level (Slaughter and Pennefather-O'Brien 2003, Compliance Dated 11/28/2003) with no new cultural resources identified in the project area.

***Impact of Proposed Action:*** The proposed action for a well pad, access road and well-tie pipeline will not impact any known cultural resources.

***Impact of No Action Alternative:*** There would be no new impacts to cultural resources under the No Action Alternative.

### ***Mitigative Measures:***

1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places
- The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- A timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and

procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

***Signature of specialist:*** Michael Selle 11/28/2003

#### **WASTES, HAZARDOUS OR SOLID:**

***Affected Environment:*** There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at this site.

***Impact of Proposed Action:*** No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated.

***Impact of No Action Alternative:*** No hazardous or other solid wastes would be generated under the no action alternative.

***Mitigative Measures:*** The operator shall be required to collect and properly dispose of any solid wastes generated by this project.

***Signature of specialist:*** Marty O'Mara 11/12/03

#### **WATER QUALITY, SURFACE OR GROUND:** (This includes all information related to Public Land Health Standard 5.)

***Affected Environment:*** BLM conducted a review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment to see if any water quality concerns have been identified. All actions are within Wray Gulch, which is tributary to the White River. The State has classified this segment as a "Use Protected" reach. It's designated beneficial uses are: Aquatic Life 1, Recreation 2, Water supply and Agriculture. The antidegradation review requirements in the Antidegradation Rule, are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. The state has defined these water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters.

The proposed actions do not include any perennial surface waters. Wray Gulch is a tributary to the White River. Water quality data is not available for this drainage. These stream segments are considered to be ephemeral drainages which flows in direct response to winter snow melt and late summer/fall rainstorms. Water quality of precipitation is considered to be of good quality, but can be high is sediment depending on the magnitude and duration of the storm event. Annual runoff from these watersheds is dynamic and dependent on some aspects we control, such as the amount of vegetation retained for watershed protection and vegetation density.

***Impact of Proposed Action:*** Depletion of the vegetation cover needed to protect watersheds from raindrop impact and runoff could cause short-term erosion problems and increased sedimentation to the White River watershed until successful best management practices (BMPs) have been implemented and proven to be successful. The magnitude of these impacts is dependent on the amount of surface disturbance and climatic conditions during the time the soils are exposed to the elements.

Some examples of BMPs that would help minimize impacts associated with well construction are: moving a pad to reduce the severity of the impacts, directional drilling to reduce the amount of surface disturbance, re-vegetating the un-used portion of the well pad as soon as possible, placing gravel on areas that will not be re-vegetated, and placing check dams to control runoff from the access road and pad.

***Impact of No Action Alternative:*** Impacts are not anticipated from not permitting the proposed action.

***Mitigative Measures:*** Efforts need to be made to keep sediment from leaving the site. With such a large cut and fill, it may be necessary to stabilize the banks with non-vegetative materials during seeding. In addition, apply the following Conditions of Approval listed in Appendix B of the White River ROD/RMP to help minimize surface disturbing impacts:

4. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. If well becomes a producing well, the topsoil pile will need to be seeded to reduce wind and water erosion. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
6. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.
8. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.
24. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.

35. Eliminate undesirable berms that retard normal surface runoff.

**Signature of specialist:** CHollowed 11/21/03

**INVASIVE, NON-NATIVE SPECIES/RECLAMATION:** (This includes vegetative information related to Public Land Health Standard 3.)

**Affected Environment:** The project is on relatively droughty site due to soil texture (clays) and high salt content. The native plant community consists of sagebrush, shadscale, winterfat, and western wheatgrass. On this site non-native grass species have out-performed native species in ground cover and ability to stabilize soils.

**Impact of Proposed Action:** The BLM proposed seed mix contains a variety of native and non-native plant species. This seed mix is appropriate to the area and should provide good reclamation. The non-native species proposed are not expected to move off site and compete with the adjacent native plant communities. Reclamation as proposed in the APD is suitable for this project.

**Impact of No Action Alternative:** No impacts.

**Mitigative Measures:** Use Standard Seed Mix 2 during reclamation of these sites.

**Signature of specialist:** Robert J. Fowler 11-18-03

**NOXIOUS WEEDS:** (This includes vegetative information related to Public Land Health Standard 3.)

**Affected Environment:** Weeds of concern in this area are bull, musk and Canada thistles, spotted, diffuse and Russian Knapweeds. All of the thistle species can be found in the area and are expected to invade on the disturbed soils. No knapweed species have been found in the immediate area, although Russian and spotted have been found in the Indian Valley area to the North.

**Impact of Proposed Action:** Disturbance of vegetation communities and soils will create suitable habitat for noxious weed establishment. If weed control is affected early on the cost and effort in weed control by the permittee will be minimized, and negative impacts on the adjacent rangelands will be prevented.

**Impact of No Action Alternative:** There would be no impacts to noxious weeds associated with this alternative.

**Mitigative Measures:** The permit holder is required to control noxious weeds resulting from construction and use activities. If chemical weed control is used application of herbicides

must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

***Signature of specialist:*** Robert J. Fowler 11-18-03

## NON-CRITICAL ELEMENTS

An X in the “Not Affected” column in the table below indicates that the non-critical element has been analyzed and will not be affected by the proposed action or the no action alternative. Affected elements are addressed in the paragraphs following the table.

Not Affected	Non-Critical Element	Specialist Signature	Date
X	Access and Transportation	Scott Pavey	12/1/03
X	Forest Management	R. Fowler	11-18-03
	Geology and Minerals		
X	Hydrology and Water Rights	CHollowed	11/21/03
X	Land Status/Realty Authorizations	Penny Brown	11/05/03
X	Fire Management	Ken Holsinger	11/19/03
	Paleontology		
	Rangeland Management		
	Recreation		
	Soils		
	Visual Resources		
X	Wildlife Aquatic	Ed Hollowed	11/21/03
	Wildlife Terrestrial		
X	Wild Horses	V. Dobrich	11-14-2003

## GEOLOGY AND MINERALS:

***Affected Environment:*** The surface geologic formation of the well location is Wasatch and Tom Brown’s targeted zone is in the Mesaverde. During drilling potential water, coal, oil and gas zones will be encountered from surface to the targeted zone.



***Impact of Proposed Action:*** The cementing procedure of the proposed action isolates the formations and will prevent the migration of gas, water, and oil between formations. Although the coal zones located in the Mesaverde are at depths greater than 3,000 feet they will also be isolated during this procedure. Development of this well will deplete the hydrocarbon resources in the targeted formation.

***Impact of No Action Alternative:*** None

***Mitigative Measures:*** None

***Signature of specialist:*** Paul Daggett 11/18/2003

## **PALEONTOLOGY:**

***Affected Environment:*** The proposed action is located in an area mapped as the Wasatch Formation (Tweto 1979) which the BLM has classified as a Category I formation meaning it is a known producer of scientifically important fossil resources.

***Impact of Proposed Action:*** The proposed action has the potential to impact scientifically important fossils, especially due to the proposed thirty-foot cut and fill profile.

***Impact of No Action Alternative:*** There would be no new impacts to fossil resources under the No Action Alternative.

***Mitigative Measures:*** All exposed rock outcrops of the Wasatch formation shall be examined by a BLM-approved paleontologist who will submit a report to the BLM containing management/mitigation recommendations prior to the initiation of construction. A paleontological monitor shall be present at all times during excavation into the underlying bedrock formation for pad leveling and/or reserve/blooiie pit excavation. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

***Signature of specialist:*** Michael Selle 11/18/2003

## **RANGE MANAGEMENT:**

***Affected Environment:*** The proposed action is located within the Little Toms Draw Allotment (06603), which is authorized for sheep use.

***Impact of Proposed Action:*** The individual proposed action would have minimal impacts on the authorized grazing use because the amount of surface disturbance (2 acres) is nominal in regards to the scale of the allotments (14,355 acres). However,

previously this allotment has entailed considerable impacts from oil and gas activities, which have resulted in a reduction of available rangelands and a loss of forage for grazing use.

The short-term soil and vegetation disturbances would be offset in the long-term by reclaiming the disturbed area with a seed mix that is suited for this ecological site. The soils within the proposed action are principally a Badland type, which has high clay content and is low yielding in forage production. Vegetation within this soil type typically consists of low desert shrubs such as sagebrush and varying salt brushes with an understory dominated of western wheatgrass and squirrel tail.

Grazing use by sheep in the Allotment can be authorized from November 1<sup>st</sup> through November 30<sup>th</sup> and/or April 20<sup>th</sup> through June 15<sup>th</sup>. The proposed action would have some limited impacts during this timeframe while sheep are grazing, in particular during the spring lambing period. This is due to the increased activity associated with the development of the proposed action and temporary decrease in rangelands available for grazing. Impacts to livestock grazing may include such influences as a modification in sheep distribution, increased difficulty in open range lambing, reduction in available forage, and impediments to livestock grazing and movement.

Overall, this individual proposed action would have no direct impact on the authorized Animal Unit Months (AUMs) in the allotments. However, the cumulative impacts from past, present, and possible future oil and gas activities may have a long-term effect on the native range's carrying capacity, thus negatively influencing the authorized AUMs. This possible affect will be determined during the grazing permit renewal process.

***Impact of No Action Alternative:*** No impacts would occur under the No Action Alternative.

***Mitigative Measures:*** Any livestock control facilities and/or rangeland improvements impacted during this operation will be replaced or repaired to their prior condition.

***Signature of specialist:*** Jed Carling      12/01/03

## **RECREATION:**

***Affected Environment:*** The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

***Impact of Proposed Action:*** The public will lose approximately two acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere.

***Impact of No Action Alternative:*** No loss of dispersed recreation potential and no impact to hunting recreationists.

***Mitigative Measures:*** None.

***Signature of specialist:*** Chris Ham 11/17/03

## **SOILS:**

***Affected Environment:*** The proposed action is located on soil mapping unit #5, Badlands. This map unit is on rolling to very steep, nearly barren mountainsides, low hills, ridgetops, and canyonsides. Slope is 10 to 65 percent. Areas generally are oval to elongated and are 20 to 300 acres. The native vegetation is mainly very sparse low desert shrubs and grasses. Elevation is 5,200 to 7,300 feet. The average annual precipitation is 8 to 18 inches, the average annual air temperature is 40 to 50 degrees F, and the average frost-free period is 75 to 130 days.

Badland is very shallow and exhibits no significant soil characteristics. The soil material consists of residuum gypsiferous shale and bentonite. Included in this unit are small areas of Chipeta and Dollard silty clay loams, Moyerson clay loam, and Rock outcrop.

Permeability of Badland is very slow. Available water capacity is very slow. Effective rooting depth is 0 to 10 inches. Runoff is very rapid, and the hazard of water erosion is very high, which results in a large amount of sedimentation during rainstorms and when snow melts. Use of this unit is very limited. The bentonite deposits are used locally as a sealing material for canals and ponds. No special designations have been assigned to this location.

***Impact of Proposed Action:*** There would be increased erosion and sedimentation from overland flows, due to removal of vegetation, soil compaction, and exposure of underlying soil layers. These impacts would be short term during the construction phase and for a period after construction providing successful reclamation occurs.

***Impact of No Action Alternative:*** Impacts from not permitting the proposed action are not anticipated.

***Mitigative Measures:*** Apply the following conditions of approval from Appendix B of White River ROD/RMP:

96. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

97. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

98. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

***Signature of specialist:*** CHollowed 11/21/03

## **VISUAL RESOURCES:**

**Affected Environment:** These wells are in an area classified as VRM Class 3. VRM Class 3 management allows for development as long as the development does not dominate the new landscape.

***Impact of Proposed Action:*** Pipelines will follow existing roads, which will be upgraded. Drill pads will be new disturbance that will comply with the guidelines for VRM Class 3 with mitigation as listed below.

**Impact of No Action Alternative:** No impacts.

**Mitigative Measures:** Production facilities shall be painted Desert Brown (Munsell Color Chart 10 YR 6/3) or equivalent, to match the surroundings. Areas not needed for production shall be reclaimed in a timely manner.

***Signature of specialist:*** Max McCoy 12-02-03

## **WILDLIFE TERRESTRIAL:**

***Affected Environment:*** This site is encompassed by mule deer severe winter range and supports large numbers of transient elk from December through April. Concentrated deer use in the area is closely associated with Wyoming and black sagebrush parks in close proximity to stands of Utah juniper. The proposed action involves a relatively open canyon bottom that, due to a lack of effective cover, less preferred woody forage composition, and persistent vehicle activity, does not support concentrated animal use. The pad, road, and pipeline are located in a xeric, sparse mixed-saltbush association within 200' of a maintained county road (i.e., Wray Gulch) that accesses the county dump and the west end of the TBI field. There is no effective security cover along the county road north of Highway 64 (about 0.5 mile south of the proposed site) or at the pad location. The closest woodland cover is on an adjoining ridgeline separated from the pad by steep barren slopes.

A BLM biologist visited this site during the fall of 2003. Proposed activities would be sufficiently removed from potential raptor nest substrate such that further inventory is not considered necessary.

***Impact of Proposed Action:*** Construction, drilling, and completion activity associated with this well would not add substantively to cumulative harassment of big game (i.e., increased energetic demands and less efficient use of available resources) on these late winter ranges.

Access to the site would be confined to a narrow corridor of limited winter range utility in close proximity to a state highway.

Barring constraints associated with other resource considerations, BLM and TBI have negotiated an informal plan whereby the BLM biologist selected well locations from TBI's 2004 development package where mid-winter construction (i.e., during the period of occupation and otherwise subject to the application of winter range restrictions in the form of a condition of approval) would involve limited animal exposure and lesser effective consequence on winter range utility (see attached issue paper). These 2 proposed wells were identified as meeting this criterion. The intent of allowing certain winter developments is to further defer development activity (until after April 31) on those wells that are situated in more effective winter habitats (i.e., those relatively unaffected by entrenched forms of disruptive use).

***Impact of No Action Alternative:*** There would be no change in existing surface conditions and there would be no potential for disrupting big game use and distribution on important winter range habitat.

***Mitigative Measures:*** None applied directly to this action, see discussion above and attachment at end of this document

***Signature of specialist:*** Ed Hollowed 11/21/03

**CUMULATIVE IMPACTS:** See discussions of cumulative impacts in the Range Management and Wildlife Terrestrial sections.

***Signature of specialist:*** Scott Pavey 12/1/03

## **FINDING OF NO SIGNIFICANT IMPACT (FONSI)/DECISION RECORD**

**FONSI:** The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. The approved mitigation measures (see attached Conditions of Approval) result in a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

**DECISION AND RATIONALE:** It is my decision to approve the development of gas well #36-11 as described in the proposed action with mitigation measures listed in the attached Conditions of Approval.

**MITIGATION MEASURES:** See attached Conditions of Approval.

**SIGNATURE OF PREPARER:**

**DATE SIGNED:**

**SIGNATURE OF ENVIRONMENTAL COORDINATOR:**

**DATE SIGNED:**

**SIGNATURE OF AUTHORIZED OFFICIAL:**

**DATE SIGNED:**

### **ATTACHMENTS:**

- 1) Memorandum: TBI 2004 drilling program
- 2) Map of the Location of the Proposed Action
- 3) Conditions of Approval

**Memorandum**

To: Max McCoy

From: Ed Hollowed

Subject: TBI 2004 drilling program

Date: 10/1/03

Based on site visits conducted on September 23 and 30, 2003 and acting on discussions from our last coordination meeting, BLM has determined that the following proposed wells would be acceptable for a winter drilling regimen (i.e., from January 1 through February 29, 2004). As discussed in this meeting, BLM's identification and/or offering of these wells for late winter drilling is made with the intent of setting back scheduled drilling/completion and pipeline construction/installation activity on these severe winter ranges until May 1, 2004 (drastically reducing energy development during important early spring timeframes, March 1 through April 30).

36-11

36-11BD

25-42B

25-31

25-21

25-12B

29-41

6-11D

36-14B (fee/fee)

25-43 (fee/fee)

These wells include 3 of the top 5 priority new wells proposed in TBI's 2004 WRD drilling program.

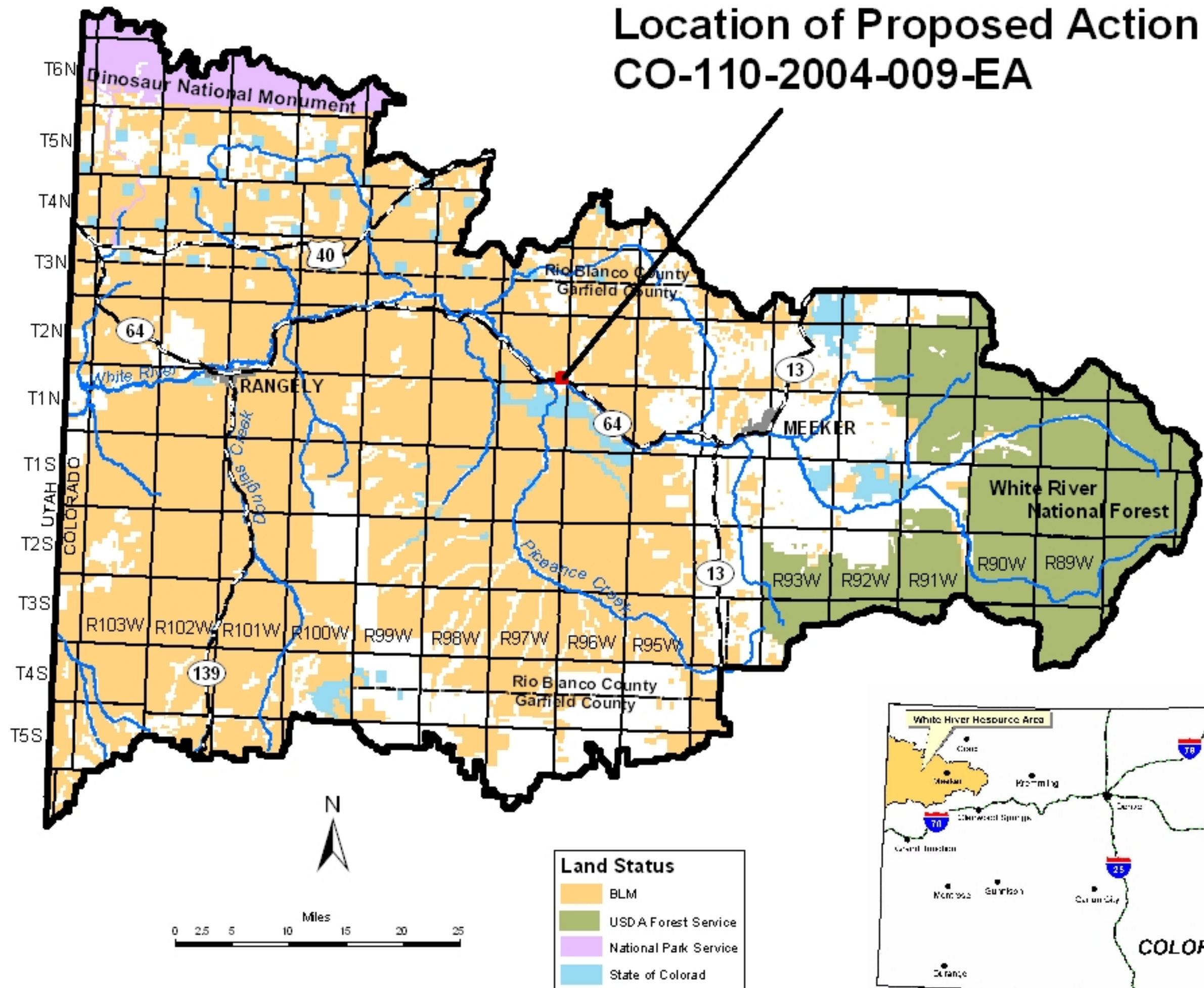
Activity deferral on winter range is applicable to all federal wells. The inclusion of fee/fee wells in this discussion is made in hopes that TBI will consider honoring deer winter range provisions on fee/fee lands within the Unit. Because access and activity associated with the development of fee wells would affect adjacent and intermingled federal lands, deer winter range issues are not relegated to federal lands. Drilling/completion and pipeline construction operations that continue through the late winter and early spring period on fee lands would generally tend to negate our efforts at minimizing extraneous energy demands on deer in the Unit.

BLM would like to emphasize that all proposed wells, particularly those that are not identified above, are available for development as long as the drilling/completion of wells and installation of pipelines are anticipated to be complete prior to 1 January 2004.

In the interest of minimizing road expansion and long-term reductions in the sagebrush forage base, the BLM wildlife biologist will recommend that proposed well 30-41B (i.e., 20-acre infill well) be directionally drilled from the existing M30 location (600' distant). This would be BLM's third proposal for offset drilling in the interest of maintaining wildlife habitat values in the Ant Hills Unit.



# Location of Proposed Action CO-110-2004-009-EA





## Conditions of Approval

3160(CO-11000)

### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Operator: Tom Brown Inc..

Well No.: #36-11, #36-11BD

Location: T2N R97W 6th PM Sec 36 NWNW

Lease No.: COC-127535

The Bureau of Land Management, White River Resource Area Office, address and home telephone contacts are:

Address:	73544 Hwy 64, Meeker, Colorado 81641
Office Phone:	(970) 878-3800
Office Fax:	(970) 878-3805
Natural Resource Specialist:	Max McCoy, home phone (970) 878-3454
Fluid Minerals Supervisor:	Vern Rholl, home phone (970) 878-3202
Petroleum Engineering Tech:	Bill Kraft, home phone (970) 878-4595
Petroleum Engineer:	Marty O'Mara, home phone (970) 878-5360

All lease and/or unit operations are to be conducted in such a manner to ensure full compliance with the applicable laws, regulations (43 CFR Part 3160), Onshore Orders, Notices to Lessees, and the approved plan of operations. Approval of this application does not relieve you of your responsibility to obtain other required federal, state, or local permits.

This application is valid for a period of one year from the date of approval. Any requests for extensions must be submitted prior to the end of the one year period. If the application terminates, any surface disturbance created under the application must be rehabilitated in accordance with the approved plan within 90 days of termination, unless otherwise approved by the authorized officer. An expired application may be reinstated at the authorized officer's discretion; however, future operations may require a new application to be filed for approval.

You have the right to request a State Director Review (SDR) of the decision to approve this APD with the attached conditions in accordance with 43 CFR 3165.3(b). A request for a SDR must occur prior to filing an appeal with the Interior Board of Land Appeals (IBLA). Your request for a SDR and all supporting documentation must be filed with the State Director (CO-922), 2850 Youngfield St., Lakewood, Colorado 80215, within 20 business days of receipt of this letter.

### CONDITIONS OF APPROVAL SPECIFIC TO #36-11, #36-11BD

1. The operator shall contact the BLM Office at (970) 878-3800 24 hours prior to the following operations:
  - Spudding (including dry hole digger or rat hole rigs)
  - Running and cementing all casing strings
  - Pressure testing of BOPE or any casing string
  - Surface reclamation work
2. The operator is responsible for informing all persons who are associated with the project

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operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the identified area can be used for grazing activities again and,

3 Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

4. Efforts need to be made to keep sediment from leaving the site.

5. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.

6. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.

7. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.

8. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.

9. Eliminate undesirable berms that retard normal surface runoff.

10. The permit holder is required to control noxious weeds resulting from construction and use activities. If chemical weed control is used the following is required: 1) Application of herbicides must be under field supervision of an EPA-certified pesticide applicator. 2) Herbicides must be registered by the EPA and application proposals must be approved by the BLM. 3) Pesticide use proposals shall be submitted to the BLM in November, prior to the year that the applicant anticipates using chemicals to control weeds.

11. All exposed rock outcrops of the Wasatch formation shall be examined by a BLM-approved paleontologist who will submit a report to the BLM containing management/mitigation recommendations prior to the initiation of construction. A paleontological monitor shall be present at all times during excavation into the underlying bedrock formation for pad leveling and/or reserve/blooiie pit excavation. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

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12. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.
13. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.
14. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff
15. Paint production facilities desert brown.
16. Wildlife concerns are as noted on the attached memorandum, dated October 2003.
17. Seed all disturbed surfaces with the following seed mixture:

SPECIES (VARIETY)	LBS. PLS/ACRE
Western wheatgrass (Arriba)	3
Pubescent wheatgrass (Luna)	2
Russian wildrye (Bozoisky)	2
Crested wheatgrass (Fairway/Ephraim)	2
Fourwing saltbush (Wytana/Rincon)	2

18. Distribute topsoil evenly over the location and prepare a seedbed by disking or ripping. Drill seed on contour at a depth no greater than 1/2 inch. In areas that cannot be drilled, broadcast at double the seeding rate and harrow seed into the soil.
19. Use seed that is certified and free of noxious weeds. Seed certification tags must be submitted to the Field Office Manager.
20. No load lines shall extend outside the tank dike.
21. The reserve pit shall have a minimum of two feet of freeboard at all times. Freeboard shall be measured from the top of the pit (liner) to the surface of the water in the reserve pit.
22. All produced fluids including dehydrator vent/condensate line effluent must be contained. All production pits must be fenced with woven wire.
23. The concentration of hazardous substances in the reserve pit at the time of pit backfilling must not exceed the standards set forth in CERCLA.
24. All open-vent exhaust stacks associated with heater-treater, separator and dehydrator units shall be installed to prevent birds and bats from entering the exhaust stacks and to the extent practical to discourage perching and nesting.

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25. Reclamation should be implemented concurrent with construction and site operations to the fullest extent possible. Final reclamation actions shall be initiated within six months of the termination of operations unless otherwise approved in writing by the Authorized Officer.
26. Fill material shall be pushed into cut areas and up over backslopes. Leave no depressions that will trap water or form ponds.
27. The operator shall be required to collect and properly dispose of any solid wastes generated by this project.
28. Any livestock control facilities and/or rangeland improvements impacted during this operation will be replaced or repaired to their prior condition.
29. With such a large cut and fill, it may be necessary to stabilize the banks with non-vegetative materials during seeding.